

ENERGY FROM WASTE SUSTAINABILITY PROJECT

SUMMARY OF STAKEHOLDER WORKSHOP OUTCOMES



ACN: 092 924 019 ABN: 53 092 924 019

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FINAL DRAFT SUBMITTED
DECEMBER 2002

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EXECUTIVE SUMMARY

Energy from Waste technologies potentially present a viable solution for recovering resources that would otherwise be lost to landfill, while at the same time reducing the use of fossil fuels for our energy sources.

The Energy from Waste Division of the Waste Management Association of Australia responded to the need for guidance around project development in the emerging Australian Energy from Waste Industry by launching the Energy from Waste Sustainability Project. This project, assisted by Commonwealth Government funding through the Australian Greenhouse Office and significant other industry and state government support, aimed to develop two resource documents:

1. A Sustainability Guide for Energy from Waste Projects; and
2. An Energy from Waste Industry Code of Practice.

The intention was that the Sustainability Guide would provide a framework around which dialogue and debate on Energy from Waste issues could occur and, by doing so, assist projects in maximising the benefits while minimising or eliminating potential negative impacts of Energy from Waste. The development of an Industry Code of Practice was seen a necessary step to ensure industry commitment to meeting the principles put forward in the Sustainability Guide.

In order to gain stakeholder input on the issues that would form the “backbone” of these documents, a total of eighteen stakeholder workshops were held across eleven locations in Australia during the latter part of 2002. This document presents a summary of the outcomes from those workshops. The workshops were run as public fora in the mornings and smaller, invitation only workshops in the afternoons.

The morning sessions included group brainstorming activities to identify the issues associated with Energy from Waste, and the allocation of these issues into general themes. No attempt was made to resolve issues identified, however a “Citizen’s Jury” was held as to whether Energy from Waste had a role to play in the recovery of resources from waste.

A total of 299 participants from thirteen stakeholder groupings attended the eleven morning workshops, producing approximately 1,800 flashcards detailing issues (positive and negative) related to Energy from Waste. These issues are grouped and discussed in this summary document according to framing considerations for Energy from Waste; Social, Political and Legislative considerations; Environmental aspects and Techno-economic issues.

In general, one of the strongest concerns identified was that Energy from Waste would take away materials from other “higher order” utilisation options such as reuse and recycling. In particular the fate of organic materials was called into question, with a strong preference for composting and agricultural applications expressed. Other concerns included emissions, not only to air (dioxins and particulate), but also to land (ash and heavy metals) and to water (also including water usage).

Many participants noted the benefits that Energy from Waste had to offer, in particular the recovery of resources that would otherwise be lost through disposal at landfill, the potential for renewable energy generation and the reduction in primary fossil fuel use for energy generation. Other benefits included the positive reduction of greenhouse gas production, the building of distributed energy generation capacity and the potential to destroy some hazardous wastes.

A major theme that emerged from all of the morning workshops was the need for community interaction, involving a mixture of participation, education, consultation, openness and transparency. Other major themes observed were related to the need for information on the types and performances of technologies; the need for a strong and consistent policy and regulatory framework and the need for the economic viability of projects to be established and the potential conflict that this might cause with supply contracts and waste minimisation initiatives. Additional items of discussion included demand side management of electricity usage, transportation implications, the role of local government and other general environmental and ecologically sustainable development concerns. Amidst the debate it was noted that the impacts of our current energy generation technologies must be understood and should be subjected to a similar level of scrutiny that EfW projects receive.

In response to the question “Does Energy from Waste have a role to play in the recovery of resources from waste?”, 2% of participants responded that EfW had no role to play in any form, 76% determined that EfW had a role to play but should be evaluated on a case by case basis while 22% of participants expressed strong support for EfW, indicating that EfW always had a role to play.

The afternoon sessions were aimed at categorising the issues identified during the morning sessions within a draft framework of Project Scoping Principles (PSP’s), developing new PSP’s where necessary, and identifying considerations for the Industry Code of Practice. There were 71 participants in the seven afternoon sessions held.

It was generally agreed that a new principle was required to cover community communication and consultation in a manner that demonstrates ongoing accountability and transparency. Other minor wording changes were suggested for PSP 2 and PSP 3. Issues were grouped under this revised project scoping principle framework, providing a structure for discussion under the PSPs in the Sustainability Guide. Other suggestions for the Sustainability Guide were also recorded, primarily with regard to the subject content of the introduction and general discussion sections.

Discussions regarding an Industry Code of Practice demonstrated an overall level of support for the concept of a Code of Practice. It was noted that the Code would be more operational than the Sustainability Guide, but the level of detail required was not resolved. The need for community involvement in the development of the Code was also identified.

In response to the question “Who is the Energy from Waste Industry?” a functional description of the industry as being those elements providing the feedstock, providing and operating the processes and marketing or managing the outputs was suggested at one of the afternoon sessions. The need for Code to be endorsed by regulators across Australia was highlighted as essential for the Code to be of use.

A number of benefits from having a Code of Practice were identified by participants, ranging from increased industry credibility, recognition and bargaining ability to providing assistance in dealing with local governments and community groups.

Issues related to the ownership, enforcement and legal implications of the Code were also discussed, with the suggestion made that there was a role for the Waste Management Association of Australia to play in this matter.

Specific details for inclusion in the Code or Practice ranged from adherence to the principles of the Sustainability Guide to community involvement and aspects of corporate citizenship. A commitment to best practice, continuous improvement and environmental management was also highlighted.

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1 INTRODUCTION

Energy from Waste (EfW) is often perceived to be no more than poorly disguised incineration and a technology that both destroys resources and creates pollution. However, EfW can present a viable solution for recovering resources that would otherwise be lost to landfill, while at the same time reducing the use of fossil fuels for our energy sources.

The EfW Division of the Waste Management Association of Australia responded to the need for guidance to resolve this potential conflict by launching the Energy from Waste Sustainability Project. This project received the support of Commonwealth Government funding through the Australian Greenhouse Office, in addition to receiving support from fifteen industry and government bodies.

The Sustainability Project aimed to develop two support documents:

1. A Sustainability Guide for EfW Projects; and
2. An Energy from Waste (EfW) Industry Code of Practice.

The intention was that the Sustainability Guide would provide a framework around which the dialogue and debate on Energy from Waste issues could occur. In particular the Guide would:

- Provide an agreed basis of evaluation for EfW projects,
- Provide a starting point for community involvement,
- Provide a design template for EfW project design, development and implementation.

In doing this it was anticipated that the overall impact of the Guide would be to assist projects in maximising the benefits while minimising or avoiding any negative impacts of EfW.

The development of an Industry Code of Practice was seen a necessary step to ensure industry commitment to meeting the principles put forward in the Sustainability Guide.

In order to gain stakeholder input on the issues that would form the “backbone” of these documents, a total of eighteen stakeholder workshops were held across eleven locations in Australia during the months of September, October and November 2002.

Warnken Industrial and Social Ecology Pty Ltd, as the project manager for the Energy from Waste Sustainability Project, were contracted to organise and facilitate the workshops, document workshop outcomes and prepare an overall summary document of major themes emerging from the workshops.



This document provides an overview of the outcomes from those workshops. Section 2 outlines the process that was involved in the running of the workshops, Section 3 groups the workshop outcomes according to framing considerations for EfW and then under the three “legs” of ecologically sustainable development, namely, Social, Political and Legislative considerations, Environmental aspects and Techno-economic issues. A selection of quotes from the workshop reports are presented in call out boxes to illustrate the flavour of participant input.

Section 4 details suggestions for the Sustainability Guide, in particular changes to the draft framework of project scoping principles that the Working Group had developed prior to the workshops and Section 5 presents the issues and suggestions regarding an Energy from Waste Industry Code of Practice.



2 THE PROCESS

As was stated in Section 1 the aim of the stakeholder consultation was to ensure that both the positive and negative aspects of Energy from Waste (EfW) projects were captured to assist the development of the Sustainability Guide. In order to deliver against this project requirement broad-based stakeholder workshops were convened in eleven cities and towns across Australia. A complete listing of the workshop dates and venues can be found in Appendix 1.

Two sets of workshops were hosted at seven of the “larger” locations, namely the broad-based morning stakeholder workshop, and a smaller invitational “expert” workshop. In this section we describe how these two sets of workshops were run and the outputs they delivered. These outputs are synthesised in Section 3 of this report.

2.1 Advertising of the process

To ensure that as wide a possible range of stakeholders was represented at the morning workshops the following methods of advertising were used:

- Newspapers advertisements in local, regional and state papers,
- Magazine articles and advertisements,
- Email newsletters,
- Media releases to newspapers and ABC radio,
- Email alerts through association distribution lists,
- Internet sites.

Interested parties were invited to register for the morning stakeholder workshops online. Representation at the smaller afternoon workshops was by invitation only. Invitation lists were compiled with input from the local Working Group member and through a review of the online registrations. In some instances a general invitation was also made to workshop participants on the day.

In total 299 people from thirteen stakeholder groups attended the eleven morning stakeholder workshops, and 71 people attended the afternoon sessions (see Section 2.2.2 for a breakdown of stakeholder participation). From the morning sessions approximately 1,800 flash cards were produced detailing issues (positive and negative) related to EfW. Complete listings of participants attending the workshops and the issues that were raised can be found in the specific workshop reports, downloadable from the EfW Division of the Waste Management Association of Australia homepage.

www.wmaa.asn.au/efw/home.html



2.2 Stakeholder Workshops

Stakeholder workshops were run over a morning session of three hours. A copy of the session program can be found in Appendix 2. The aim of these sessions was to ensure that all the concerns and perceptions of the stakeholders present were captured. To this end these sessions focussed on issue identification only, no attempt was made to reach consensus on issues raised.

2.2.1 Summary of Process

The morning sessions started with an introduction to the project, to ensure, as far as possible that all people present were presenting issues relative to a consistent basis. The attendees self-selected into smaller groups, run as “Tables” for the workshop. Tables consisted of six or more people, with a maximum of ten per table. Each table had a facilitator who was given support instructions on how to facilitate the process for their table. These instructions are included in Appendix 3. The participants were invited to spend some time writing their concerns onto flash cards provided. As a group the table then decided on generic groupings for these issues, and recorded these onto overhead transparencies for presentation to the workshop as a whole. The workshop reconvened to allow for presentation of the table discussions.

The tables were also asked to act as a “Citizen’s Jury” and vote on the following issues:

- EfW has **no** role to play in any form;
- EfW has a role to play but that role is determined on a case by case basis; or
- EfW **always** has a role to play in any form.

The results of these votes were recorded and presented to the workshop as a whole.

Following the group report back session the draft framework of project scoping principles was presented. An attempt was made to summarise issues identified during the report back session that would need to be addressed within this framework.

2.2.2 Breakdown of Stakeholder Participation

Participants who registered online also nominated a stakeholder grouping that best fitted their interest/activities related to Energy from Waste. This breakdown has been used to provide an estimate on the ratios of stakeholder representation amongst workshop attendees and is presented in Table 2 below.

**Table 1** Breakdown of stakeholder participation

Stakeholder Group	%
Academics & Researchers	6%
Consultants	21%
Developers/Technology Providers	7%
Energy Sector	7%
Feedstock - Other Users	1%
Feedstock Providers	3%
Finance Sector	1%
Government Federal	1%
Government Local	24%
Government State	14%
Media	1%
Non Government Organisations	6%
Other	8%

2.2.3 Nature of Outputs

All of the flash cards submitted by the workshop attendees were transcribed after the workshop. These comments, together with a transcription of the overheads used by each table and a record of the voting of each table formed the output of each workshop.

This final output was in the form of a workshop report which was circulated to all workshop attendees, and has been made available to the public on the WMAA EfW homepage.

The reports contain a wealth of information and, in their entirety, describe the complexity of the EfW issue in Australia. A synthesis of the stakeholder workshop outcomes is included in Section 3 of this report.

2.3 Smaller Invitational Workshops

Smaller invitational workshops were hosted in the afternoon of the stakeholder workshops and lasted three hours. A workshop program for these sessions can be found in Appendix 2.



2.3.1 Process

The smaller workshops made use of the results of the stakeholder workshops, as well as any further issues which attendees felt were significant, and attempted to determine:

- Whether the draft Project Scoping Principles (PSP) developed by the Working Group addressed these issues, and if so, which PSP addressed the issue; or
- Whether the issue was not addressed by the PSP framework and thus required either further discussion in the Guide, or the establishment of a new PSP.

Secondly, the development of an Industry Code of Practice (CoP) was discussed. At some workshops this was the only item of discussion. The discussion centred around answering the following:

- Who is the “Industry”?
- What should be included within the scope of the CoP?
- What are the issues with implementation and ownership of the CoP?

The aim of these workshops was to build consensus. For this reason, and because the number of attendees at these workshops was relatively small, workshops were run as group sessions with a single facilitator.

2.3.2 Nature of Outputs

Workshop reports were also generated for all of the smaller workshops. These can be downloaded from the EfW homepage. These reports detail how the issues highlighted in the stakeholder workshops can be grouped into the relevant PSP. Issues which fell outside the Draft PSPs were highlighted and, where relevant, additional PSPs were suggested. Elements which require more discussion than has been included in the Draft Sustainability Guide were ear-marked for more in-depth discussion.

The breadth of considerations to be included in an Industry Code of Practice was also reported.



3 STAKEHOLDER WORKSHOP OUTCOMES

The issues and considerations highlighted at the eleven morning stakeholder workshops hosted through this project have been synthesised into generic categories within this section. Section 4 of this report places these issues in the context of the Project Scoping Principles of the EfW Sustainability Guide.

The outcomes of the workshop explored the significant range and complexity of issues associated with EfW projects. While care has been taken to ensure that all issues have been included in this report, a comprehensive listing of arguments offered at the workshops cannot be captured in this relatively short document. The Sustainability Guide should thus also refer to individual workshop reports to ensure that the breadth of arguments is addressed.

Think more long term – in relation to limited / alternative fossil fuel. Remember the Indian proverb “We did not inherit the earth from our forefathers – we were put here to mind it for our children”

3.1 Framing Considerations

A number of different philosophical bases for decision making on project selection were highlighted at the workshop:

- Projects should be fit for purpose.
- Care should be taken to deliver highest possible resource recovery and to maintain **organic value** as far as possible before using material as an energy source.
- Decision making should incorporate the “big picture” and be strategic in nature, including life cycle considerations and being solution focussed and not problem focussed.
- **Extended producer responsibility** should play a role in the development of strategies, and EfW projects should not undermine the future viability of other extended producer responsibility plans.
- Care should be taken to ensure that excess energy availability does not lead to inefficient and wasteful energy use.
- EfW projects should not be seen as **encouraging waste generation**, or to be **undermining any waste minimisation** projects.
- EfW projects are consistent with ESD objectives and are making use of a resource which might otherwise be wasted.
- Clear terminology definitions are required.
- Care should be taken to ensure that future scenarios are explored when a project is proposed. While many workshop participants stressed the **need for action** in the short-term, there was the concern that projects accepted now might jeopardise the potential (both environmental and economic) for future technologies to survive.

Project scoping principles sound good in theory but are they practical?-eg. Determining “best use” of a material on what is best use? How can we ensure materials to go to their best use?

The fact the EfW processes tend to be an alternative to composting or recycling processes is a waste of resources-It should be a process of last resource.



- The potential for EfW processes to **destroy some hazardous wastes** deserves comment.

The results of the “citizens jury” provide an overall perspective on the general philosophical position of participants with regard to Energy from Waste. These are presented in Section 3.6.

3.2 Social, Political and Legislative considerations

3.2.1 Community Issues

One of the most significant outcomes of the workshop process was the emphasis which was placed on communities, this was a common theme at all the workshops. Community considerations include:

- **Community education** including the communication and explanation of risks associated with emissions, addressing perceptions relating to concerns around forestry depletion and human health effects, resolving misconceptions relating to the efficacy of technologies and ensuring community perception of EfW as a way of delivering sustainable outcomes to communities. There is the potential for proactive capacity building to reduce some of the emotional debate around EfW projects. The community should be made aware of EfW projects, and the final destiny of the wastes which they produce, with the intention of ensuring that waste becomes the responsibility of the community and not the regulators. It should be noted that the newer the technology proposed for a project, the greater will be the uncertainty of the community about the ability of the technology to deliver the projected outcomes.
- Care should be taken to ensure that **community behaviour** is not adversely affected, that over consumption should not be encouraged, and that existing behaviour relating to recycling initiatives (splitting wastes at source) are not undermined; the potential exists to enhance existing community behaviour through well-managed kerbside systems.
- **Stakeholder values** should be considered during decision making processes on EfW projects. This links to the consumer education issue as the appropriate information needs to be available to stakeholders to support effective debate between stakeholders.

Potential Actions for addressing community issues include:

- Ensuring that all communication is transparent and that project proponents are accountable, this will build the credibility of the industry. Care should be taken to ensure that information supplied is consistent.
- Appropriate siting of new facilities which includes a consideration of all community values, issues relating to transport routes; buffer zones should be maintained.

Community concerns with safety of waste to energy facilities- Perceived technical complexity of waste to energy facilities - Lack of community control of waste to energy facilities.

Long range health risks are not identified/studied give concern to community particularly when dealing with MSW or industrial waste.

Nature does not create waste! - God recycles and the Devil burns.

Public Perception of modern EfW Plants is dirty, emission producing incinerators and a 'blot' on the landscape.



- There should be a focus on the development of partnerships, for example between communities and industry, or as part of integrated municipal planning.
- The perception that EfW technologies are equivalent to incineration needs to be addressed in the short term.

3.2.2 Local Government Concerns and Considerations

The reason for highlighting this element of the debate is because waste management is, to a great extent, managed at a local level and has the potential to be a highly politicised issue. The workshops hosted during the project were convened both in the cities, and in regional Australia. Some considerations specific to regional Australia were highlighted. In general, the comments relating to local government concerns and considerations include:

- EfW projects have the potential to encourage **uniform and integrated waste management** across cities and to aid local government to deliver against their responsibilities in this regard. Significant levels of co-ordination will be required to link the management of wastes at a local level to regional infrastructure.
- **Waste strategies** developed at a local level should be consistent and developed in a co-operative manner; they should also be commercially viable. Local authorities have the greatest role to play in ensuring that highest resource recovery is being realised in their region.
- Landfill **infrastructure** is in place and generates **income** at a local level, care should be taken to understand existing infrastructure and future requirements. At the same time a number of landfills are to close in the near future and valid alternatives are sought; however, the majority of alternatives will result in increased costs to rate payers. Currently low landfill charges have the potential to undermine the economic viability of EfW projects.
- Catering for the needs of **remote communities** is complex and not to be under-estimated, at the very least the trade-off between transport distances and energy recovered must be assessed. Partnerships may have a significant role to play here.
- Local Authorities have a significant role to play in **communication** with communities highlighted in section 3.2.1. and in engaging the community in relevant debates and decision making processes.
- **Jurisdictional** issues need to be clarified, between local, state and federal government.

What about existing infrastructure having been established by local government at a high cost eg; expensive landfills. Although maybe not the best technology, my sympathy is with the ratepayers that have to bear the costs.

Diverting Municipal Solid Waste to EfW plant means that landfills can accept a higher percentage of inert waste, thereby naturally aiding the site rehabilitation at minimum cost. Therefore, there is an enhancement of the surrounding area/dwellings.



3.2.3 Policy Considerations and Legislative Considerations

The role of Federal and State government was not highlighted to any great extent other than where concerns were expressed about the efficacy of State Government in this area and the need for consistent regulation and policy across Australia. Rather attention was focussed on the potential for the proposed Sustainability Guide to inform Policy and Legislation and whether it could possibly be adopted by Federal and State government to inform the development of legislation. This would provide a level of consistency desired across the different states and territories.

The elements of the debate relating to policy, legislation and regulation are:

- Using waste to supply energy includes an implicit understanding that wastes will be generated and may be seen to **undermine any “zero waste”** programmes.
- **Regulation** of EfW projects in some form is required, whether this is self-regulation or through enacted legislation – with preference being voiced for the latter. Regulation should not be prescriptive, it should support innovation on the part of the project proponent and not limit the potential future of technology development. Mandatory standards which have the support of statutory authorities are needed.
- Any **policy** developed should recognise the interplay between energy and waste generation and should ensure that one is not supported through over-emphasis being placed on the other. There is the need for consistency and uniformity in the government’s policy direction. Current **impediments** to distributed energy recovery are seen to be both regulatory and commercial, efforts need to be made to match technology and policy.
- The complexity of current **legislation** was highlighted as a stumbling point, this coupled with uncertainty around future legislation has the potential to undermine any benefits which EfW projects might deliver. Concern was also expressed about the time and cost of application processes. Care should be taken to ensure that any control mechanisms developed are objective.
- A review of **tariff** levels on electricity and gas is necessary in order to make alternatives which are more environmentally and economically feasible.
- The potential for State Governments to develop integrated **strategies** for their states should be investigated and supported.

Once an EfW facility is established, that there are still opportunities for waste reduction, i.e. doesn't create incentive to convert everything to waste.

Sustainability requires strong regulation, monitoring and compliance. If one is not working, how do we guarantee environmental emissions are sustainable?

We are already a wasteful society.- The nation of EfW across the board will “unleash” industry to produce useless material which we will happily/lazily toss out in the warm and fuzzy glow of our newfound waste being converted to energy.



3.3 Environmental

3.3.1 Environmental Benefits

The perceived environmental benefits associated with EfW projects were consistent across the stakeholder workshops, and include:

- A decrease in the **material sent to landfill** with associated availability of landfill volume and reduction of **the impacts associated with landfilling** materials (such as impacts on ground water). In addition to this the wastage of materials is avoided, i.e. producing energy from waste is preferable to doing nothing with the waste and thus losing the energy which it contains. This exemplifies improved **resource recovery** and can potentially increase recycling opportunities.
- Dependency on **fossil fuels** will be reduced. In spite of the fact that the renewable nature of feedstreams to EfW processes was debated and no conclusions were drawn, it was accepted that, in general, energy produced from waste materials was preferable to that derived from fossil fuels and could be seen as relatively more sustainable.
- A reduction in total **greenhouse gases** associated with the provision of energy could be achieved. It must be noted that there was significant confusion regarding the greenhouse gas implication of EfW projects. This was highlighted as an area requiring publicly accessible information.
- **Transformation** of a waste into a resource.

Current landfills impact on local amenity and residents through: odour, noise, litter. - Good to find an alternative to current system and associated problems.

3.3.2 Potential Environmental Impacts

Workshop participants generally recognised that there are potential environmental impacts associated with EfW projects. However, the workshop attendees were satisfied that, in the main, these impacts could be managed. It was also identified that our current methods of generating energy were not environmentally benign, with brown coal combustion being a case in point. Potential environmental impacts of EfW highlighted included:

- **Off-gases and residues** which would require adequate management using tailored pollution control equipment. In addition, further research is required to ensure that EfW processes are sufficiently well understood and that pollution control technology selected is adequate to ensure that the processes operate within, or beyond, legislative limits. Performance relative to these standards should be consistent. Emissions of specific concern were dioxins arising from the combustion of PVC and the effects associated with the metals present in CCA treated timbers. It is these effects which lead to the desire for buffer zones described in section 3.2.1.
- Other environmental impacts which should be considered include the **“nuisance” impacts** of noise, odour, visual impacts etc.

EfW projects don't convert matter into energy. The law of Conservation of matter means that the emissions of matter after a thermal process exceed the input. Know what all the emissions are.

Atmospheric pollutants from thermal combustion-Can we truly guarantee that “nasties” are not released?- Given the history of combustion, can we get public confidence?



- Environmental impacts associated with EfW projects have the potential to be both **short-lived** (off-gas emissions) and **long-term** (effects associated with solid residues and persistent compounds). Adequate management of these is a pre-requisite.
- The on-site human health effects of technologies should not be overlooked, this is also referred to in section 3.2.1 of this report.
- **Feedstock quality** control is significant as any contaminants in the feedstream will report to one or other residue from an EfW process and would require active management to ensure that the natural environment is not negatively effected. Emphasis was placed on CCA treated timbers in this context.
- Impacts associated with the **storage of feedstreams** must be quantified and addressed.
- Streams which might have been **recycled** and retained in the industrial economy will no longer be available.

Potential actions which can be taken to minimise the deleterious environmental effects of EfW processes are:

- **Extended producer responsibility** and design for the environment to ensure that environmental considerations are taken on board at the outset of the project; care should be taken to ensure that closure and decommissioning are included in any project proposal.
- **Verification** and sampling of fuels and the removal of contaminants.
- EfW processes have the potential to have limited environmental impact, this needs to be **communicated** effectively to the broader community (see section 3.2.1 of this report).
- **Best practice** for different fuel sources should be established; processes should be operated optimally with state-of-the-art process control; all attempts should be made to minimise human error; energy efficient processes should be a focus; appropriate materials and streams should be identified and materials adequately sorted. It should also be recognised that “Best Practice” is potentially region or site specific.
- **Replacing existing systems** which do not have adequate environmental performance; this might include improved gas recovery from landfills.

Waste disposal for domestic users in the north is still largely seen as a free access service or one funded by existing charges – eg: rates collected by city councils, how will the costs of implementing EfW industries be distributed and could “user pays” systems create other problems – such as illegal dumping – which make developments non-viable?



3.4 Techno-Economics

This category includes consideration of specific suitable technologies, as well as an indication of potential constraints on the operation of these technologies. Economic barriers and constraints are also highlighted.

3.4.1 Management of the EfW feedstream

The management of the feedstream could be related to environmental considerations (contaminants contained in the feedstream could lead to environmentally unacceptable emissions) or social considerations (changing the manner in which wastes are collected can change social attitudes to waste generation and collection). For example:

- Wastes which have the potential to form part of the feedstream to EfW processes should be **classified** and their maximum potential realised.
- EfW projects should incorporate a consideration of **risk** associated with the supply of waste as a feedstream, contingency plans for the replacement of wastes as feeds should be made to ensure that waste is not generated to “feed the furnace”.
- Unacceptable **contaminants** (defined relative to potential emissions from the process) must be removed from the feedstream; this process must be monitored, audited and reported to ensure a high level of **quality control** on the feedstream.
- The **non-homogeneous** nature of the feedstream must be addressed explicitly.
- **Information** on the quality, quantity and value of potential feedstreams needs to be generated.
- **The impact of transport** should be minimised either by limiting the distance between feedstream generation and utilisation or by accessing back loading opportunities.
- **Trade-off** between security of supply and potential to undermine better uses for the feedstream – project proponents desire a known quantity of feed for a significant amount of time, these long-term contracts have the potential to undermine the economic potential of alternative uses for the feedstream.

Waste to Energy predominately requires consistent feedstock. We need to ensure technologies are flexible and can cope with variable feedstock.

Need for strategic planning to determine where the most appropriate sites are for projects.

3.4.2 Technical Considerations and Constraints

Technologies should be selected for EfW projects only once the following issues have been addressed, it should be noted that each of these points contains the implicit understanding that preferred technologies may differ between metropolitan and regional Australia:

- Technology should be **fit for purpose**; don't just accept solutions which have worked overseas – at the same time don't try to re-invent the wheel; equal opportunity should be extended to all technologies, whether or not they are EfW technologies.



- **Efficiency** of energy recovery should be a driver.
- Technologies should be **flexible** in order that they can both manage inconsistency in feed materials, and retain the potential to respond to future changes in waste management; technologies should represent a long-term solution without constraining the ability of future communities to strive for their own sustainable development.
- **No prescriptive definition** of a preferred technology should be made, innovation should be encouraged; this has both an economic (section 3.4.3) and a legislative element (section 3.2.3).
- **Technology is not the only fix**, and should not be developed in isolation. For instance, partnerships for behavioural change related to waste minimisation should be investigated.
- Inefficiencies in **technologies used previously** have the potential to undermine future EfW projects (negative historical legacy of EFW).
- Opportunities for **co-generation** of energy, and **co-firing** with existing fossil fuels should not be overlooked.
- There is significant concern about the **uncertainty** associated with the operation of EfW technologies, both because a significant number of the technologies is unproven at a process plant scale, and because of the non-homogeneity of the feedstream (section 3.4.1); these concerns should be addressed through a formal communication strategy (section 3.2.1).
- **Scale** of application of EfW technologies could include both distributed and centralised operations, this will vary between regional and metropolitan areas.
- Competition from **other sources** of “green energy” should not be overlooked.
- New, innovative EfW technologies have the potential to lead to new **opportunities**.
- Companies proposing EfW projects should have **credibility**.

Identify the most appropriate materials for EfW - Separate any suitable material compositions to ensure that the treatment is more effective

3.4.3 Economic Considerations

The economic considerations covered at the workshops included both project-specific financial considerations, as well as potential future levy structures. Both of these sets of considerations are included below:

- Existing **landfill levies** and **energy costs** are currently too low to render EfW technologies economically viable (even if they are proven to have better environmental performance and are accepted by stakeholders in the area); levy structures may need to be re-evaluated to ensure that the true cost of landfilling and energy provision are reflected, this is also discussed in section 3.2.2; funding is required to support initial plants/pilot projects, government support is necessary in this context.

*There Abideth
Faith, Hope and
Money. All three.
And the greatest of
these is money.”
George Orwell
(with apologies to
St. Matthew)*



- EfW projects must **internalise all externalities** and ensure that they had made adequate provision for such considerations as planning for closure (see section 3.2.3).
- The fact that **overseas solutions** are not necessarily economic in Australia should be acknowledged, addressing this could be included in any community education process (section 3.2.1).
- The economic viability of projects has the potential to be undermined by siting requirements, especially if this results in significant **transportation distances** (see section 3.2.2).
- Public-private and private-private **partnerships** should be investigated.
- Further **market research** into the need for “green electricity” may be required.
- The number of **jobs created** and/or destroyed and the investment in the local community should be quantified.
- There is a perceived lack of **venture capital** to support such projects.
- **Tradeable certificates** such as RECs were highlighted as having a significant role to play in ensuring that EfW projects are economically viable.
- Installation **costs** for remote communities should not be underestimated; the potential for EfW projects to add an economic burden to local government and/or communities should be highlighted.
- **Monopoly** situations should be avoided.

All waste resources which can be recovered or may potentially be recovered in the future must be separated, sorted and stored until they are used. The residual may go to EfW based on an LCA study that this is the best option.

3.5 Assessment tools and Indicator sets

A number of the comments from the workshops referred to specific management tools and/or potential indicators which exist, or require development. These are detailed below:

- Assessments should include a complete consideration of **sustainability criteria** including economic, social and environmental, this should include job creation, costs to local communities, noise, odour etc.
- **Highest resource value** must be defined and quantified.
- **Life Cycle Assessment** should be used to compare between potential EfW technologies and to determine whether EfW or alternative recycling processes are preferred.
- The entire **project life cycle** from project selection to closure and post-closure should be considered.

Will need to define resource value to ensure that only true end-of-life products are routed to provision of energy; need to define resource value in terms of socio-political, techno-economic and environmental considerations.



- A uniform **database** should be established that facilitates comparison of projects, significant research is required in this area.
- EfW projects should be **monitored and audited** and should be required to report their performance in a transparent manner.
- All **indicators** constructed should be transparent, defensible and understandable.

3.6 Results of the Citizen's Juries

As was mentioned in Section 2, stakeholders voted in a "citizen's jury" as to whether EfW has a role to play in the recovery of resources from waste. Stakeholders were required to indicate whether:

- EfW has **no** role to play in any form;
- EfW has a role to play but that role is determined on a case by case basis; or
- EfW **always** has a role to play in any form.

The intention of this "straw poll" was to identify any poles of very strong opposition or strong support to EfW projects. While there were some reservations about the structuring of the question, the majority of workshop participants (76% + 22% = 98%) expressed support for the concept of EfW having a role to play in resource recovery from waste. Only a small minority of participants (2%) expressed absolute opposition to EfW.

Develop a framework for decision-making which makes it possible to assess trade-offs accepted between different criteria when decisions on projects or feedstream selection/allocation are taken.



The break down of voting at Workshops is presented in Table 2 below.

Table 2 Results of Citizen's Jury Voting

Location	Strongly No	Contingent	Strongly Yes
	EfW has no role to play in any form	EfW has a role to play but that role is determined on case by case issues	EfW always has a role to play in any form
Canberra	1	14	5
Sydney	3	38	2
Hobart	0.5	22	0.5
Perth	0	23	14
Melbourne	0	35	14
Shepparton	1	10	4
Darwin	0	8	3
Adelaide	0	25	5
Dubbo	0	2	4
Townsville	0	6	1
Brisbane	1	22	6
Totals	6.5	205	58.5
%	2%	76%	22%

It is noted that the majority of those supporting EfW suggested that projects must be evaluated on a case-by-case basis. This highlighted the need for mechanisms such as the Sustainability Guide to provide the assistance in deciding those case-by-case instances.

(Note: the discrepancy between total votes cast in the ballot above and the workshop participant summary is caused by the Project Manager and the Chairman not voting at workshops and also from participants who left early from a workshop. A half vote was recorded in two instances where the participant voted half way between the two categories.)



4 SUGGESTIONS FOR RE-DRAFTING THE SUSTAINABILITY GUIDE

A draft framework of project scoping principles was developed by the working group of the EfW Division of the WMAA. This framework was tested at the several of the smaller afternoon sessions. Below are the suggestions for new project scoping principles, suggested changes to the existing framework and a summary of the issues that were grouped for discussion under different PSPs.

It should be noted that the linearity of the principles was questioned. A repeated suggestion was for the progression of the principles to be non-hierarchical.

4.1 New Project Scoping Principles

There was strong support expressed for the addition of a project scoping principle (PSP) to cover all aspects of community interaction with EfW projects. It was felt that by having this as a separate PSP the Sustainability Guide would clearly communicate the importance of community involvement in the development of EfW projects. There was concern that this message could be diluted if community aspects were contained within the discussion or incorporated into an existing PSP.

A suggested wording for this PSP, the “nullth” principle, was put forward by the Melbourne afternoon session, identifying the purpose of the project as being:

“Measures to ensure a communication and consultation plan that demonstrates ongoing accountability and transparency.”

It was suggested that this principle cover community issues such as:

- Involvement,
- Education,
- Provision of information,
- Consultation,
- Participation,
- Engagement,
- Perception (Historical negative context),
- Awareness,
- Health issues,
- Employment,
- Transparency,
- Accountability,



- Siting,
- Waste Minimisation,
- Waste Hierarchy,
- Impacts on Recycling.

4.2 Suggested Changes to the Existing Framework

There were suggestions to change the wording on two of the other project scoping principles – PSP 2 and PSP 3.

The first suggestion was to change “Technology” to “Process” in PSP 2, resulting in:

“Project Scoping Principle #2 - Selection of Optimum Conversion **Process**”.

The second suggestion was to add “optimal social outcomes” into PSP 3, changing it to:

“Project Scoping Principle #3 - Systems Quality Control for Assurance of Optimum Environmental and **Social** Outcomes”.

No other direct wording suggestion were recorded. However it should be noted that PSP 5 – “Measures to Compensate for the Inadequacies of the Prevailing Market Conditions” was recognised as being the least developed of the PSPs and consequently requires further consideration and development.

4.3 Grouping of Issues under PSP Framework

Below is a summary of the issues that PSPs 1 – 5 (with the changed wording) should cover in their discussion. It is suggested that individual workshop notes be consulted for further elaboration on the detail within each issue.

4.3.1 Project Scoping Principle #1 - Best Use of Available Materials

Aim: To demonstrate that use of the available residual materials for conversion to energy represents the most sustainable use in both the short and long term.

- Highest Resource Value,
- Recovery of materials for reuse,
- Competition for waste materials from recycling,
- Continuation of recycling – source separation,
- Use of organics for compost and agriculture,
- Waste Minimisation and the Waste Hierarchy,



- Controls of feedstock to allow for best use,
- Mass balance of energy use.

4.3.2 Project Scoping Principle #2 - Selection of Optimum Conversion Process

Aim: To demonstrate that the selected EfW process is the most efficient conversion technology for the available fuel source(s) in the circumstances. Conversion inefficiency means wasted resource value.

- Technology selection (consideration of alternatives),
- Cost of technology,
- Feedstock preparation (heterogenous to homogeneous),
- Use of existing infrastructure (co-firing),
- Cogeneration,
- Siting of technology,
- Worlds best performing technology,
- Transport implications,
- Materials handling requirements,
- Pilot facilities to prove performance,
- Redundancy,
- Closure plan for technology.

4.3.3 Project Scoping Principle #3 - Systems Quality Control for Assurance of Optimum Environmental and Social Outcomes

Aim: To demonstrate that where the available residuals cannot be presented entirely fit-for-purpose, that the selected conversion processes and management systems can control unacceptable by-products or pollutants or unintended environmental impacts.

- Emissions to air (in particular dioxins, furans and particulate),
- Emissions to land (ash – heavy metal implications),
- Emissions to water,
- Systems for control of contamination (outputs),
- Systems for control of feedstock (inputs),
- Water use,
- Stockpile management,
- Pollutant inventories,



- Quality assurance,
- Feedstock flexibility,
- Greenhouse gas balances,
- Training and competency standards,
- General environment issues,
- General health implications,
- Design of plant (aesthetics),
- Regulation (licence conditions),
- Hazardous materials.

4.3.4 Project Scoping Principle #4 - Management of the Commercial Interface between Waste Generation and Energy Requirements

Aim: To ensure that energy demand cannot stimulate waste generation, and that conversely, waste availability will not unsustainably stimulate energy consumption.

- Encouragement of waste generation,
- Waste minimisation,
- Renewable energy,
- Energy efficiency (demand management),
- Venture capital and resource security,
- Supply contracts (time),
- Gate fee structures,
- Transport costs.

4.3.5 Project Scoping Principle #5 - Measures to Compensate for the Inadequacies of the Prevailing Market Conditions

Aim: To oblige proponents to quantify any required normalisation of market conditions to meet ESD objectives - which may include impact of landfill levies, incentives or subsidies - to demonstrate an internalisation of the environmental externalities.

- Impacts of landfill levy,
- Impacts of renewable energy certificates,
- Impacts of carbon credits,
- Internalisation of externalities,



- Market forces,
- Other market based instruments,
- Current subsidies within energy generation.

4.4 Introduction and General Discussion

Suggestions were also made with regard to the content that the Sustainability Guide should include by means of an introduction to Energy from Waste and also by means of a general discussion that provides a context for the EfW debate. These included (in no particular order):

- General benefits of EfW,
- Philosophical framework and drivers for EfW,
- Current energy generation, usage and transmission,
- Policy setting for EfW,
- Ecological Sustainable Development and Triple Bottom Line issues,
- Fate of landfill,
- Greenhouse gas issues and EfW,
- Regulatory framework,
- Methodologies for assessing Highest Resource Value,
- Methodology for assessing the impacts and benefits of EfW projects,
- Economic issues,
- Integrated waste management,
- Regional solutions,
- Need for research and development,
- Need for information on technologies and waste availability,
- Role of the three levels of government,
- Need for action now versus development of new technologies.



5 SUGGESTIONS FOR THE INDUSTRY CODE OF PRACTICE

A general discussion was held regarding an Industry Code of Practice (CoP) at each of the seven afternoon sessions. Below are the suggestions and comments arising from that discussion.

5.1 Nature of an Industry CoP

The question “What is the role of an Industry CoP?” featured as a starting point for discussion. Some participants questioned the value of a CoP, concerned that the Industry was too “young” to develop a Code. Others concerned that the CoP would not be used at a state planning level and was therefore of limited value. Others queried the distinction between a Code of Ethics and a Code of Conduct.

Overall however, there was support for the concept of a Code of Practice, the key question being the level of detail to be included in the CoP. For instance, whether to have a Code that was predominantly at a strategic level or whether to develop a “nuts and bolts”, highly prescriptive and operational document.

It was generally felt that the Code would be **more operational than the Sustainability Guide**, but would not have the level of detail included in project licence conditions. Another observation based on the development of the Clinical Waste Management Code of Practice was that the entire process lasted six years and required several iterations to develop the detail and consensus on the CoP.

The issue regarding the level of detail was not resolved. What was supported was the fact that consensus was required in order for the CoP to be of any value and that community input into the development of the CoP was also necessary.

5.1.1 Who is the Energy from Waste Industry?

The scope of the EfW Industry was debated. A functional description of the Industry as being those elements **providing the feedstock, providing and operating the processes and marketing or managing the outputs** suggested that the industry comprised:

- Waste suppliers,
- Technology providers,
- Operators,
- Product purchasers,
- Waste planners – regional groups,

The CoP should be the set practices that we the operators/ technology producers/ project developers will undertake wherever we are given a “community operation licence” for an EfW facility.



- Community groups and NGO's (ultimately determine the go/no go status of a project),
- Consultants and advisors (included on the periphery cf. traffic consultants).

It was noted that there were differences between the generation of heat and the generation of electricity, potentially requiring differentiation the CoP owing to different participants. The issue of size of operation was also flagged, i.e. the Code should not discriminate against smaller scale industry members.

5.1.2 Role of Government

A nationwide Code of Practice was seen as a measure of proactively engaging with government at all levels, especially if consensus amongst the majority of industry could be achieved. It was suggested that a nationwide CoP could play a part in supporting commonality and consistency between state legislatures. This would be the case if the CoP was able to be called up in state legislation, highlighting the need for the CoP to be endorsed by regulators.

5.1.3 Benefits Associated with an Industry CoP

Some of the benefits of having a Code of Practice that were identified during discussion included:

- Industry credibility,
- Industry bargaining and leverage,
- Assistance in gaining statutory approvals by being a signatory,
- Recognition,
- Setting standards of operation within the Industry,
- Providing assurance to the community regarding compliance with licence conditions,
- Assist in dealing with local governments and community groups.

5.1.4 Ownership, Evolution and the Role of the Waste Management Association of Australia

It was generally recognised that the CoP would need to be owned and administered by one organisation in order to ensure that the Code is updated and revised on a regular basis (eg. every three years). A potential role for the Waste Management Association of Australia to play in this regard was noted.

Against this it was recognised that there are requirements to resource this evolutionary approach and that the regulation of the CoP could be problematic (See 5.1.5).

A narrow focus loses the "bigger picture" issues such as nutrient cycles; natural resource management; energy flows and balance in organic ecosystem, and net export of energy and nutrients. The Code needs to promote the concept of 'biomimicry' and 'natural' systems flows.



5.1.5 Compliance with an Industry CoP

Associated with the notion of an Industry Code of Practice was the issue of managing non-compliance with the Code, i.e. what is the mechanism for assessment and enforcement? Suggestions included:

- Expulsion of member,
- Accreditation with independent auditing (external to WMAA),
- Legislation to catch free-riders / 'cowboys',
- Potential for legal action,
- Self regulation through environmental management systems,
- Market forces,
- Conditions of supply contracts,
- Removed from list of signatories.

5.1.6 Legal Implications

In addition to issues surrounding compliance with the CoP, a number of other legal issues were also identified, such as the potential for the CoP to be called up in legislation and the implications of the the CoP with regard to competition policy.

Also at issue was the liability issue associated with dependence on a CoP to establish regulatory performance. It was not known whether a disclaimer would be sufficient to manage that liability.

5.2 Suggested Details to be Included in the Industry CoP

The discussion below presents some of the specific suggestions that were made for inclusion into an Energy from Waste industry Code Of Practice.

5.2.1 Adherence to the Principles of the Sustainability Guide

Workshop participants generally agreed that one of the fundamental ingredients of the CoP should be to agree to adhere to the principles within the Sustainability Guide. Some went as far as suggesting the the CoP should be a guide to implementing the sustainability guide.

5.2.2 Community Involvement

It was felt that a commitment to ensuring an ongoing process of community involvement should be significant requirement under the CoP. This would involve some mechanism to undertake community education/information /consultation/involvement in a credible fashion.



5.2.3 Aspects of Corporate Citizenship

An undertaking to be a good corporate citizen was suggested for inclusion in the CoP. Specifically this would cover aspects such as:

- Open and transparent communication with community, including reporting, provision of monitoring data,
- Commitment to work between government and industry,
- Commitment to ongoing R&D on the reduction of environmental impacts.

5.2.4 Concepts of Best Practice and Continuous Improvement

The issue of “best practice” received a mixed reaction, owing in part to the difficulties associated with defining best practice and the changing nature of what comprises best practice. Alternative suggestions were put forward regarding a commitment to continuous improvement, without the setting of an initial benchmark. Still others wanted to see a commitment to “beyond compliance” and the setting of industry competency standards.

In general the value of a commitment to best practice and to continuous improvement was recognised and that a requirement of this involved some uniform level of education/understanding within the industry.

Establishing the "bar" needs to be an iterative process – this first step needs to be in the right direction and can be achieved with the concept of better (as opposed to best) practices

5.2.5 Environmental Management

The Code should cover environmental issues such as air emissions, water usage and management of solid by-products such as ash. Other aspects of environmental management also mentioned included issues such as noise, traffic, odour, litter, dust and waste tracking.

5.2.6 Community Involvement

The Code should ensure a process of community involvement by providing a mechanism for consultation that demonstrates openness and accountability.



APPENDIX 1

Location	Date	Time	Venue	Attendance
Canberra	18-Sep	9am - 12noon	Rydges Capital Hill	23
Sydney	24-Sep	9am - 12noon	The Mercure Hotel Sydney	46
Hobart	25-Sep	9am - 12noon	The Lands Building	22
Perth	1-Oct	9am - 12noon	The River Room	42
Melbourne	8-Oct	9am - 12noon	City of Banyule Rethink Centre	54
Shepparton	10-Oct	10am - 1pm	Parklake Motor Inn	16
Darwin	22-Oct	9am - 12noon	Darwin City Council Civic Centre	14
Adelaide	24-Oct	9am - 12noon	Radisson Playford Hotel	32
Dubbo	29-Oct	9am - 12noon	Dubbo Council Civic Centre	9
Townsville	6-Nov	9am - 12noon	Townsville Civic Centre	9
Brisbane	7-Nov	9am - 12noon	Hilton Brisbane	32



APPENDIX 2

Appendix 2-1

Morning Workshop Program

9.00 – 9.05	Welcome and introduction
9.05 – 9.30	Overview of the project, background information and plan for today
9.30 – 10.30	Table discussion
10.30 – 10.50	Morning tea
10.50 – 11.40	Report back results of table discussion
11.40 -11.50	Presentation of Energy from Waste Project Scoping Principles
11.50 – 12.00	Summing up – Where to from here?
12	Workshop close

Appendix 2-2

Afternoon Workshop Program

14.00 - 14.05	Welcome and Introduction
14.05 - 14.20	Background information and plan for today
14.20 - 15.20	Discussion of Energy from Waste Project Scoping Principles
15.20 - 15.40	Afternoon tea
15.40 - 16.30	Issue identification for Industry Code of Practice
16.30 - 16.50	Report back
16.50 - 17.00	Summing up – Where to from here?
17	Workshop Close



APPENDIX 3

Energy from Waste Sustainability Project

General Stakeholder Session

Facilitator's Notes

Program

9.00 – 9.05	Welcome and introduction
9.05 – 9.30	Overview of the project, background information and plan for today
9.30 – 10.30	Table discussion
10.30 – 10.50	Morning tea
10.50 – 11.40	Report back
11.40 -11.50	Presentation of Energy from Waste Project Scoping Principles
11.50 – 12.00	Summing up – Where to from here?
12.00	Workshop close

Notes:

Thank you for agreeing to facilitate the round table discussion element of this workshop.

Please remember that, while consensus on issues raised is relevant, achieving consensus is not the aim of this workshop. What we are trying to achieve here is to highlight and record ALL issues which are of concern to the stakeholders at your. However, an indication of the number of people who feel that a particular issue is of importance is useful, as this may support the further development of the Sustainability Guide.

As a background, if people at your table ask what is to happen with the output from this workshop, the answer is that it will be synthesised together with the outputs from the other ten workshops being held around Australia into a final workshop report. This final workshop report will be made available to all workshop attendees via the project website, www.wmaa.asn.au/efw/home.html and will be used to inform further development of the sustainability guide.

The project Working Group is tasked with ensuring that all concerns are addressed in the re-drafting of the Sustainability Guide. The workshop report will thus ensure that the attention of the working group is drawn to issues highlighted at these workshops.

There are a number of steps to the round table discussions, you as facilitator have a specific role to play in each. You may like to also ask for a volunteer scribe and/or spokesperson to assist in this process:

1. Introductions: ask everyone at the table to introduce themselves, they will need to be brief as time is limited, just names and affiliations would work, but perhaps an indication of their motivation for attending the workshop would help as this will let you know what their point of view is likely to be in the discussions. Limit this to a maximum of five minutes.



2. Identifying Issues: please ask all of the people around the table to record their issues with EfW onto the cards provided, with one issue per card. Before they start this remind them that issues are not necessarily only negative, there are positive considerations associated with recovering energy from waste. Give them as many cards as they need, but limit their time to 10 minutes, stretching this to 15 only if unavoidable.

3. Grouping Issues: this is probably the most difficult bit and requires your initiative. For this process to be effective people should be on their feet and spread out their cards on the table. The intention being for people to start to group their cards around other similar issues. For instance there might be several variations on the theme “avoidance of landfill” or “air pollution”. These should be grouped together and the entire table should participate – regrouping as they see fit. When the table has (more or less) finished grouping the issues into their major categories it is time to record the main grouping themes and in the process, discuss and debate any of the issues.

4. Record, Discuss and Debate: This follows on from the grouping process above. A volunteer scribe can be called for if you like. Use the overheads (overhead pens are provided) to record the major grouping themes that the group has identified and include two to three points as examples if this will help clarify the issue (for example “air pollution” might have “dioxins” and “particulates” as sub points. During the discussion you (as facilitator) will need to make sure that there are not one or two dominant voices that are setting any priorities, ask the quiet ones whether they agree. Remember that you (or a volunteer spokesperson) will need to report back on this session. Try not to dwell on a single point for too long, remind the participants that the aim is to highlight all issues, not to gain consensus. You should finish this session with at least five minutes to go in the session (so after 55 minutes of the session have passed).

5. Citizen’s Jury: Poll the entire table on “Does EfW have a role to play in resource recovery from waste?” with the choices Strongly Yes, Contingent and Strongly No. Record the results on the voting overhead. Tease out any further discussion points that come out of this process. Please also include them on the overhead provided.

There will be a twenty minute morning tea break before the report back session that should give you adequate time to finalise the major debate points (either for yourself or for the nominated spokesperson). Please collect all cards on which issues have been written and put them into the folder provided. This is extremely important as it is part of our record of what has been said at the workshops; the cards will become part of the archive of stakeholder responses and will be used to support our arguments for changes in the Sustainability Guide.

Thank you again

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